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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/486,784	03/01/2000	RALF DONNER	4797-8PUS	2441

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EXAMINER
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RIDLEY, BASIA ANNA

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

17

<b>Office Action Summary</b>	<b>Application No.</b> 09/486,784	<b>Applicant(s)</b> DONNER ET AL.	
	<b>Examiner</b> Basia Ridley <i>BR</i>	<b>Art Unit</b> 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-17 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 6-17 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 01 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:
  - in line 7 of the paragraph inserted on page 5 after line 11 (as part of preliminary amendment filed 1 March 2000) "Figure shows" should be replaced with --Figure 1 shows--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 6-7 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudymov et al. (FR 2,569,827) in view of Kummel et al. (USP 4,188,915).

Regarding claim(s) 6, Gudymov et al. discloses an appliance for gasification of carbon containing fuel comprising:

- a reaction chamber (Fig. 1) having a contour delimited by a cooled reactor wall of the following structure from the outside inward:
  - a pressure shell (2,4,9);
  - a cooling wall (1,3,5);
  - a water cooled cooling gap (12) between the pressure shell (2,4,9) and the cooling wall (1,3,5);
  - a layer of slag (Abstract).

The reference does not explicitly disclose the cooling wall being protected by a layer of ceramic on a side of the cooling wall facing away from the cooling gap.

Kummel et al. teaches that it is desired to cover the cooling wall (37) with a protective layer

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of ceramic (36) to provide radiation protection and, further, to protect the cooling wall and provide rough surface for the slag to adhere when the refractory lining has been lost during operation (C2/L10-37 and C4/L19-C5/L5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to cover the cooling wall of the appliance of Gudymov et al. with a ceramic layer, as taught by Kummel et al. for the purpose of provide radiation protection and, further, to protect the cooling wall and provide rough surface for the slag to adhere when the refractory lining has been lost during operation.

Regarding claim(s) 7, Gudymov et al. discloses an appliance for gasification of carbon containing fuel comprising:

- a reaction chamber (Fig. 1) having a contour delimited by a cooled reactor wall of the following structure from the outside inward:
- a pressure shell (2,4,9);
- a cooling wall (1,3,5);
- a water cooled cooling gap (12) between the pressure shell (2,4,9) and the cooling wall (1,3,5);
- refractory lining (19); and
- a layer of slag (Abstract).

The reference does not explicitly disclose the cooling wall being protected by a layer of ceramic on a side of the cooling wall facing away from the cooling gap.

Kummel et al. teaches that it is desired to arrange a protective layer of ceramic (36) between the cooling wall (37) and the refractory lining (40) to provide radiation protection and to protect the cooling wall and provide rough surface for the slag to adhere when the refractory lining has been lost during operation (C2/L10-37 and C4/L19-C5/L5).

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to cover the cooling wall of the appliance of Gudymov et al. with a ceramic layer, as taught by Kummel et al. for the purpose of provide radiation protection and, further, to protect the cooling wall and provide rough surface for the slag to adhere when the refractory lining has been lost during operation.

Regarding claim 12-15, Gudymov et al. in view of Kummel et al. disclose all of the claim limitations as set forth above. Additionally, Gudymov et al. discloses the appliance wherein:

- the cooling wall has geometric shapes (Fig. 2);
- the cooling wall is one of trapezium-shaped, triangular, rectangular, of undulating form and of smooth form (Fig. 2).

Regarding claim 16-17, Gudymov et al. in view of Kummel et al. disclose all of the claim limitations as set forth above. Additionally, Gudymov et al. discloses the appliance wherein the pressure shell is connected to the cooling wall at the input and the outlet opening (Fig. 1) and Kummel et al. discloses the appliance wherein the protective layer facilitates cooling of the layer of slag and/or refractory lining (Fig. 1).

Regarding limitations recited in claims 6-7 and 12-17 which are directed to a manner of operating disclosed appliance, the examiner notes that neither the manner of operating a disclosed device nor material or article worked upon further limit an apparatus claim. Said limitations do not differentiate apparatus claims from prior art. See MPEP § 2114 and 2115. Further, the examiner notes that process limitations do not have patentable weight in an apparatus claim. See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969) that states "Expressions relating the apparatus to contents thereof and to an intended operation are of no significance in determining patentability of the apparatus claim."

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4. Claim(s) 8-11 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudymov et al. (FR 2,569,827) in view of Kummel et al. (USP 4,188,915), as applied to claims 6-7 above, and further in view of Price (USP 2,231,295).

Regarding claims 8-9, Gudymov et al. in view of Kummel et al. disclose all of the claim limitations as set forth above. Additionally, Gudymov et al. discloses the cooling wall being pinned and welded in an air tight manner (Abstract) and forming cooling jacket with fins, but the reference does not explicitly disclose the cooling wall comprising half tubes.

Price establishes equivalency of cooling gas passages having various shapes e.g. cooling jackets and half tubes (Fig. 4-5). As instant specification is silent to unexpected results, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the cooling jacket of Gudymov et al. with half pipe passages, since such modification would have involved a mere substitution of known equivalent structures. A substitution of known equivalent structures is generally recognized as being within the level of ordinary skill in the art.

Regarding claim 10-11, the recitation of a method in which said layer of ceramic mass is made, the examiner notes that the determination of patentability is determined by the recited structure of the apparatus and not by a method of making said structure. A claim containing a recitation with respect to the manner in which a claimed apparatus is made does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim.

Regarding limitations recited in claims 8-11 which are directed to a manner of operating disclosed appliance, the examiner notes that neither the manner of operating a disclosed device nor material or article worked upon further limit an apparatus claim. Said limitations do not differentiate apparatus claims from prior art. See MPEP § 2114 and 2115. Further, the examiner

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notes that process limitations do not have patentable weight in an apparatus claim. See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969) that states "Expressions relating the apparatus to contents thereof and to an intended operation are of no significance in determining patentability of the apparatus claim."

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

#### ***Response to Arguments***

6. Applicant's arguments filed on 20 May 2004 have been fully considered but they are not persuasive.

7. The applicant argues that Gudymov et al. does not show the ceramic protection on the side of the cooling wall facing away from the cooling gap. In response the examiner notes that Gudymov et al. was not relied upon to teach the ceramic protection on the side of the cooling wall facing away from the cooling gap. The examiner has, however, relied upon the disclosure of Kummel et al., as set forth above, to teach the ceramic protection on the side of the cooling wall facing away from the cooling gap.

8. The applicant argues that Kummel et al. does not show pressure shell around the cooling wall. In response the examiner notes that Kummel et al. was not relied upon to teach the pressure shell around the cooling wall. The examiner has, however, relied upon the disclosure of Gudymov

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et al., as set forth above, to teach the pressure shell around the cooling wall.

9. The applicant argues that Kummel et al. does not show the ceramic protection on the side of the cooling wall facing away from the cooling gap. This is not found persuasive, because Kummel et al. clearly shows the a protective layer of ceramic (36) between the cooling wall (37) and the refractory lining (40), on the side of the cooling wall (37) facing away from the cooling gap (C2/L10-37 and C4/L19-C5/L5).

***Conclusion***

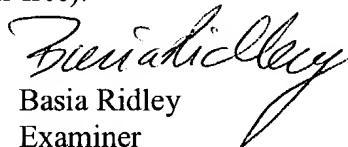
10. In view of the foregoing, none of the claims are allowed.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Basia Ridley, whose telephone number is (571) 272-1453.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on (571) 272-1444.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Technical Center 1700 General Information Telephone No. is (571) 272-1700. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Questions on access to the Private PAIR system should be directed to the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

  
Basia Ridley  
Examiner  
Art Unit 1764

BR

June 28, 2004